



Mediatory Role of Career Decision Making Self Efficacy and Vocational Outcome Expectations on the Relationship between Personality and Career Goals among Senior Secondary School Students

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Abstract: Current research investigates that personality traits as well as career goals among secondary school students are mediated by Vocational Outcome Expectations (VOE) and Career Decision Making Self Efficacy (CDMSE). Employing Big Five personality traits framework, study analyzes how these traits influence students' career choices and the mechanisms through which self-efficacy and outcome expectations mediate this relationship. Data were collected from 568 secondary school students in the 11th and 12th grades, representing eight schools across eight districts in Tripura, India. Deploying a quantitative approach, standardized questionnaires were administered to assess personality factors, Outcome Expectations, Career Goals, and CDMSE. Results demonstrate personality factors or traits, especially Openness, have a crucial role in the student's Choice Goals, with CDMSE mediating as a significant factor and VOE enhancing this relationship, stressing the relevance of CDMSE in pursuit of career goals. The findings suggest that promoting CDMSE may assist students in utilizing their personality factors more efficiently in the formulation and achievement of career objectives, which are of high degree. However, as the research is based on self-assessment questionnaires, it has certain limitations with respect to generalizing findings, and additional factors that affect Choice Goals should also be analyzed further. These limitations provide potential areas for future research, which should focus on the impact of specific educational programs targeted to enhance CDMSE on student outcomes in different contexts.

Keywords: *Career Goals, Vocational Outcome Expectations, Senior Secondary School Students, Mediation Analysis, Personality Traits, Career Decision-Making Self-Efficacy, Social Cognitive Career Theory.*



INTRODUCTION

For senior secondary school students, choosing a career is a crucial developmental employment that will significantly impact their professional and personal lives in future. Understanding the factors that mould students' career choices is not just important but crucial for providing practical guidance and support. Personality traits, as critical determinants of career-related behaviours and outcomes (Lounsbury et al., 2005), are at heart of current research, which aims in exploring their impact on choice goals, with a particular focus on CDMSE and VOE mediatory roles.

According to McCrae and Costa Jr, 1997, Big 5 model of personality traits—conscientiousness, extraversion, agreeableness, neuroticism, as well as openness—has an impact on an individual's approach their professional duties. These characteristics affect whether individuals view and approach work-related tasks. Conscientious people, for example, are more likely to establish and follow organized career goals, whereas highly open people might consider a wider variety of job possibilities (Lounsbury et al., 2005).

Confidence a person has in their capacity to make wise professional decisions is known as CDMSE (Taylor and Betz, 1983). Greater career exploration, greater career decision-making, and better career achievement are all associated to high CDMSE levels (Lent and Brown, 2017). VOE, on the contrary, involve beliefs about likely results of engaging in specific career behaviours (Bandura, 1986). Positive vocational outcome expectations could motivate students for exhibiting extraordinary resilience and determination in pursuing their professional objectives. (Lent and Brown, 2017).

Prior studies have demonstrated that CDMSE and VOE have a considerable impact on career choice goals (Brown and Lent, 2012). However, the interplay between personality traits, CDMSE, and VOE in influencing career choice goals is a gap that urgently needs to be filled. This study seeks to address this need by examining how personality traits impact choice goals through the mediatory effects of CDMSE and vocational outcome expectations.

Making career choices is not a simple task but a complex and multifaceted process that involves various psychological factors. Personality traits, as critical determinants of career-related behaviours and decisions, add another layer of complexity to this process. Big 5 personality traits include agreeableness, extraversion, neuroticism, conscientiousness, and openness widely recognized in influencing several life outcomes, including career choices (Zhang et al., 2024).

Current research is grounded in Social Cognitive Career Theory (SCCT) that posits that interplay of environmental factors, personal attributes, and learning experiences influences career development. SCCT highlights that self-efficacy and outcome expectations shape career goals, interests, and actions (Turda, 2024). By applying SCCT, this research aims to elucidate the pathways through which personality traits impact career choice goals via CDMSE and VOE, addressing a significant need in the current academic field.

Career choice goals and personality traits have been thoroughly researched. This literature review explores the mediatory CDMSE and VOE role in this relationship, particularly among secondary school students.

Personality and Choice Goals/**CAREER CHOICE GOALS**

Study of personality and its influence on choice goals/career choice goals has gained significant attention in educational and vocational psychology. Personality traits, as defined by Big 5 model (McCrae and Costa Jr, 1997), are critical predictors of individual differences in cognition, behaviour, and preferences, influencing decision-making process related to career and life goals. Choice goals, referring to individuals' aspirations and objectives for selecting career paths or personal endeavours, are closely tied to intrinsic and extrinsic motivational factors (Deci and Ryan, 1985). This review examines the theoretical and empirical linkages between personality traits and choice goals, with a particular focus on intriguing role of self-efficacy in mediating goal-setting and vocational expectations.

Personality traits significantly influence decision-making processes and goal-setting behaviours. For instance, conscientiousness and openness to experience are consistently linked to setting ambitious and achievable goals (Judge and Ilies, 2002). Conscientious individuals tend for exhibiting planning & persistence at higher levels, aligning with long-term goal attainment (Roberts et al., 2006). Meanwhile, neuroticism often leads to avoidance-oriented goals due to anxiety and apprehension of failure (Elliot and Thrash, 2002), a concern that we should be aware of in our understanding of personality and goal-setting.

Personality traits significantly influence career choice goals. It has been demonstrated that Big 5 personality traits



agreeableness, conscientiousness, extraversion, openness, and neuroticism, have an impact on decisions and aspirations related to a career. For instance, individuals high in conscientiousness are more likely to set specific career goals and diligently work towards them, while those high in openness may be more inclined to explore diverse career options and take risks in their career directions (Zhang et al., 2024).

MEDIATORY ROLE OF CAREER DECISION-MAKING SELF-EFFICACY (CDSE) AND VOCATIONAL OUTCOME EXPECTATIONS

CAREER DECISION-MAKING SELF-EFFICACY

CDMSE significantly mediates relationships involving personality traits and choice goals. Bandura's (1986) self-efficacy theory, goal-setting and pursuit are strongly influenced by one's belief in one's capacity to accomplish tasks. Research by Betz and Hackett (2006) indicates that extraversion and openness are positively associated with CDMSE, facilitating proactive exploration of career options. Conversely, neuroticism negatively affects CDMSE, often leading to indecisiveness and low commitment to choice goals (Nauta, 2010).

The CDMSE is a potent instrument that gives people confidence in their ability to decide on a career. This is a crucial component of career growth, impacting the decision-making process and results. More career exploration, along with additional deliberate career decisions, have been associated to higher CDMSE levels (Yu et al., 2021). This concept offers individuals assurance that they can arrive at informed decisions about their careers. Career choices that are more proactive as well as confident have been associated with higher self-efficacy (Zhao et al., 2022).

A key component of career development, CDMSE measures an individual's belief in their capacity for making decisions pertaining to their career. The association among personality traits and career goals is mediated by CDMSE, based on research. As an illustration, proactive personalities are inclined to participate in career exploration activities that improve their CDMSE.

Establishing more confident and decisive career decisions is a result of this proactive attitude (Zhao et al., 2022). Individuals with particular personality qualities are more inclined to acquire strong CDMSE, that in turn favourably influences their career goals, according to studies that demonstrate CDMSE mediates the association amongst personality factors and career choice goals (Conkel Ziebell, 2010). In their study, Yu et al. (2021) discovered that, through CDMSE and career exploration mediating effects, proactive personality had beneficial impact on career decidedness. This implies that proactive people are more inclined to investigate several options for a career that enhances their confidence when choosing career.

VOCATIONAL OUTCOME EXPECTATION (VOE)

VOE, beliefs about engaging results in specific career choices (Lent et al. (1994). They significantly influence career choices and persistence in related activities. Positive expectations, fostered by traits like openness and agreeableness, are not just beliefs but empowering forces that lead to ambitious and socially oriented career goals. Conversely, pessimistic outcome expectations, often associated with high neuroticism, can be seen as disempowering, deterring individuals from pursuing challenging or unconventional career paths. Conversely, positive expectations are related to additional ambitious goals along with higher career aspirations (Turda, 2024).

Research indicates that these expectations mediate association among personality traits & career choice goals. It is observed that individuals with certain traits, such as openness and agreeableness, tend to have more positive vocational outcome expectations (Yu et al., 2021). According to Bandura's (1989) social cognitive theory, outcome expectations are crucial in determining behaviour, suggesting that individuals with positive expectations are more likely to pursue ambitious career goals (Zhao et al., 2022). Additionally, while negative expectations may discourage students from pursuing particular professional choices, positive outcome expectations might encourage them (Conkel Ziebell, 2010).

Although personality traits influence career choices, mediating CDMSE and VOE effects in such process are poorly understood, which is essential for practical career guidance. The present study seeks to clarify how personality affects career decision-making could significantly enhance educational practices and career counselling for secondary school students by providing a deeper understanding of mediating CDMSE and VOE functions.



RESEARCH DESIGN AND METHODOLOGY

RESEARCH DESIGN

Research adopts clarified research design with survey approach, utilizing a quantitative methodology to investigate the associations between personality traits choice goals of secondary school students, VOE, and CDMSE.

POPULATION, AND SAMPLE

The target population includes secondary school students in grades 11 and 12 across CBSE-affiliated co-educational schools in Tripura. The sample comprises 568 students, consisting of 286 boys and 282 girls, from one selected school in each of the eight districts of Tripura.

SAMPLING

To guarantee representation across grades along with gender, a stratified random sampling technique is employed, in which students are picked based on predetermined inclusion criteria, and schools are chosen at random. The sample size of 568 participants is calculated to provide sufficient statistical power for detecting hypothesized relationships among the variables. Study includes students enrolled in CBSE-affiliated secondary schools, currently in grades 11 or 12, and encompasses both male and female participants.

SAMPLING TECHNIQUES:

Following particular statistical techniques have been utilized in this investigation for analysis along with satisfying various research objectives:

Descriptive Statistics: To summarize sample data characteristics, including means, standard deviations, medians, and frequencies for all relevant variables, descriptive statistics was used in the study

Correlation Analysis: For assessing association within Personality traits, CDMSE, Outcome Expectations/VOE, and Career Goals. This helps identify whether there are significant correlations among these variables.

Regression Analysis: To assess the direct impact of Personality traits, CDMSE and VOE on Career Goals. Simple linear regressions were conducted to analyze how well these predictors explain the variance in career goals.

Mediation Analysis: To investigate mediating function of CDMSE and VOE in relationship within personality traits and career goals (Gravetter and Wallnau, 2014).

DATA COLLECTION

Surveys and questionnaires that emphasize personality traits, CDMSE, VOE, and choice goals have been utilized for gathering data. Prior to participation, parents or guardians and students submit their informed agreement, while schools have been selected at random from each district.

RESULTS AND DISCUSSION

Current section discusses results on how CDMSE and VOE influence career goals among secondary school students, highlighting their mediating functions through descriptive and inferential statistics examination.

DESCRIPTIVE STATISTICS

Participants demographic statistics are presented, along with descriptive statistics for each variable.



Table 3.1: Descriptive Statistics Estimates of Research Variables

	<i>Openness</i>	<i>Conscientiousness</i>	<i>Extroversion</i>	<i>Agreeableness</i>	<i>Neuroticism</i>	<i>CDMSE</i>	<i>VOE</i>	<i>Choice Goals</i>
<i>N</i>	568	568	568	568	568	568	568	568
<i>Missing</i>	0	0	0	0	0	0	0	0
<i>Mean</i>	3.59	3.05	3.18	3.33	3.21	5.67	3.39	4.16
<i>Standard deviation</i>	0.542	0.556	0.526	0.576	0.623	0.754	0.474	0.705
<i>Minimum</i>	1.67	1.20	1.40	1.25	1.50	2.65	1.67	1.38
<i>Maximum</i>	4.89	4.60	4.60	5.00	5.00	9.29	4.75	11.3
<i>Skewness</i>	-0.241	-0.130	-0.151	-0.196	-0.0359	-0.496	-0.608	0.952
<i>Std. error skewness</i>	0.103	0.103	0.103	0.103	0.103	0.103	0.103	0.103
<i>Kurtosis</i>	0.120	-0.0789	0.371	0.290	-0.121	1.26	0.0862	18.1
<i>Std. error kurtosis</i>	0.205	0.205	0.205	0.205	0.205	0.205	0.205	0.205

The table shows the sample size (N) is 568 for all variables, and Missing data = 0 implies completed data set for all the variables. There is no missing data in final analysis. Descriptive statistics: the table explains the eight variables, which include Openness, Conscientiousness, Extroversion, Agreeableness, Neuroticism, CDMSE, VOE, and Choice Goals. Further explanation is given below:

1. Openness:

- Mean: 3.59
- Std. Deviation: 0.542
- Skewness: -0.241
- Kurtosis: 0.120

Interpretation: The mean for openness 3.59, stands high, which indicates that the majority of respondents scored high on openness to experience. Even the negative skewness indicates there are more high scores than low, while the positive kurtosis value means that the frequency distribution in the data is relatively normal.

2. Conscientiousness:

- Mean: 3.05
- Std. Deviation: 0.556
- Skewness: -0.130
- Kurtosis: -0.0789



Interpretation: The mean score of 3.05 suggesting that the score is in the mid-region. There is slight negative skewness, so one can expect that only more of the participants would have higher scores, and the kurtosis value near horizontal zero suggests a normal distribution.

3. Extroversion:

- Mean: 3.18
- Std. Deviation: 0.525
- Skewness: -0.151
- Kurtosis: 0.328

Interpretation: The mean 3.18 is indicative of low levels of extroversion. In terms of the negative skewness value, this interprets the greater number of high scorers, while the kurtosis tends towards positive, which explains a more sculpted shape of distribution.

4. Agreeableness:

- Mean: 3.33
- Std. Deviation: 0.576
- Skewness: -0.196
- Kurtosis: 0.290

Interpretation: The average score (3.33) for agreeableness is above the midpoint, indicating that participants are generally agreeable. The value of negative skewness suggests more participants score high, and the positive kurtosis indicates a peaked distribution.

5. Neuroticism:

- Mean: 3.21
- Std. Deviation: 0.623
- Skewness: -0.0359
- Kurtosis: -0.121

Interpretation: The mean of the population's score 3.21 on Neuroticism is around the mid-point. The mean being around zero suggests that the dispersion is even, while adverse to this, the negative value in kurtosis suggests a bloated deviance.

6. CDMSE:

- Mean: 5.67
- Std. Deviation: 0.754
- Skewness: -0.496
- Kurtosis: 1.26

Interpretation: The mean score of 5.67 indicates self-efficacy high level in career decision-making. The negative skewness suggests more high scorers, and the positive kurtosis indicates a peaked distribution.

7. Vocational Outcome Expectations (VOE):

- Mean: 3.39



- Std. Deviation: 0.474
- Skewness: -0.608
- Kurtosis: 0.0862

Interpretation: The average score (3.39) for vocational outcome expectations is moderate. The negative skewness indicates that there are some relatively higher scorers in the population, while the positive kurtosis implies a distribution that is approximately, but not quite, normal.

8. Choice Goals:

- Mean: 4.16
- Std. Deviation: 0.705
- Skewness: 0.952
- Kurtosis: 18.1

Interpretation: The average score for choice goals is above the midpoint, meaning that there is evidenced desire or intent to have specific goals among the participants. The positive skewness indicates more low scorers, and the very high kurtosis indicates a distribution that is rather high and narrow.

To summarize, the participants, on average, have been observed to exhibit high openness to experience, agreeableness, and CDMSE. However, on average, they have low levels of conscientiousness, extroversion, neuroticism, VOE and choice goals. Overall pattern is a normal distribution of the scores, although, in some traits, there is a little skewness and kurtosis.

INFERENTIAL STATISTICS

Results of the correlation in current research, regression and mediation analyses are employed, highlighting direct and indirect personality traits effects on choice goals through CDMSE and VOE.

The results of these three inferential statistics (correlation, regression and mediation analyses) conducted, and the results are implemented in the current study.

CORRELATION COEFFICIENT

Correlation coefficient is conducted to understand strength and linear association direction between two variables (Janse et al., 2021). Current research correlation coefficient was conducted within personality traits & career-related constructs such as Career Goals/Choice Goals, CDMSE and VOE.

Table-3.2: Correlation between Personality Traits and Choice Goals

Variable	N	Pearson's <i>r</i>	<i>p</i> -value
Openness and Choice Goals	568	0.408***	< .001
Conscientiousness and Choice Goals	568	0.135***	0.001
Extroversion and Choice Goals	568	0.270***	< .001
Agreeableness and Choice Goals	568	0.261***	< .001
Neuroticism and Choice Goals	568	0.135***	0.001

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Interpretation of the Correlation between Personality Factors and Career Goals: The results between Personality traits and Choice Goals show that all five personality traits have positive and significant relationships with Choice goals.



The correlation analysis between openness and choice goals ($r=0.408$, $p<.001$) indicates a moderate positive relationship, suggesting that greater openness is linked to more defined career goals.

Conscientiousness and Choice Goals shows positive correlation significance with choice goals ($r = 0.135$, $p = 0.001$), implying that higher conscientiousness is associated with clearer career aspirations.

Significant positive correlation among extroversion and choice goals ($r=0.270$, $p<.001$) indicates increased extroversion correlates with more ambitious career goals.

The results reveal positive correlation between agreeableness and choice goals ($r = 0.261$, $p < .001$), suggesting that individuals with higher agreeableness are likely to have more defined career ambitions.

Neuroticism is positively correlated with choice goals ($r = 0.135$, $p = 0.001$), indicating that those with higher neuroticism may set clearer career goals to manage their anxieties.

Table3.3: Correlation between Personality traits and CDMSE

Variable	N	Pearson's r	p-value
Openness and CDMSE	568	0.497***	< .001
Conscientiousness and CDMSE	568	0.095*	0.024
Extroversion and CDMSE	568	0.285***	< .001
Agreeableness and CDMSE	568	0.314*	<.001
Neuroticism and CDMSE	568	0.105***	0.013

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Interpretation of the correlation between Personality Traits and Career Decision Making Self-Efficacy: Analysis of 5 personality factors with CDMSE reveals different degrees of positive correlations.

Openness shows a moderate to strong positive correlation ($r=0.497$, $p<.001$), suggesting that students high in openness, marked by curiosity and adaptability, exhibit greater confidence in career decision-making.

Conscientiousness shows a weak but significant correlation ($r=0.095$, $p=0.024$), indicating that traits like discipline and organization have a small positive impact on CDMSE.

Extraversion indicates a moderate positive correlation ($r=0.285$, $p<.001$), displaying that sociable and assertive students confidently explore career opportunities.

Agreeableness displays a moderate correlation ($r=0.314$, $p<.001$), highlighting that cooperativeness and empathy support confidence in navigating career choices.

Neuroticism exhibits weak but significant correlation ($r=0.105$, $p=0.013$), suggesting neuroticism may contribute positively to CDMSE, potentially through resilience-building.

Table3.4: Correlation between CDMSE and Choice Goals

Variable	N	Pearson's r	p-value
CDMSE and Choice Goals	568	0.798***	< .001

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Interpretation of the relationship between CDMSE and Choice Goals: The analysis reveals a significant positive correlation between CDMSE and Choice Goals, with a Pearson's r of 0.798 and a p-value less than 0.001. This indicates higher CDMSE levels are strongly associated with more defined and ambitious career goals.



Table-3.5: Correlation between Personality traits and VOE

Variable	N	Pearson's r	p-value
Openness and VOE	568	0.416***	< .001
Conscientiousness and VOE	568	0.081	0.055
Extroversion and VOE	568	0.265***	< .001
Agreeableness and VOE	568	0.279***	<.001
Neuroticism and VOE	568	0.180***	<.001

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Interpretation of the relationships between Personality Factors and Vocational Outcome Expectations: All the analysis of personality traits & VOE reveals significant positive relationships among themselves.

Openness exhibits a strong positive correlation with VOE ($r = 0.416$, $p < .001$), indicating that individuals with higher openness are likely to anticipate better vocational outcomes.

Conscientiousness shows a weak and non-significant correlation with VOE ($r = 0.081$, $p = 0.055$), indicating no strong association between these traits.

Extroversion has a significant positive correlation with VOE ($r = 0.265$, $p < .001$), implying that higher extroversion is linked to greater expectations of vocational success.

Agreeableness is significantly positively associated with VOE ($r = 0.279$, $p < .001$), showing that more agreeable individuals tend to expect better vocational outcomes.

Neuroticism also has a significant positive correlation with VOE ($r = 0.180$, $p < .001$), suggesting that individuals with higher neuroticism may still hold higher vocational outcome expectations.

It is important to note that the correlation between conscientiousness and outcome expectations was found to be non-significant; therefore, further analyses, including regression and mediation, were not conducted.

Table-3.6: Correlation between VOE and Choice Goals

Variables	N		Pearson's r	p-value
VOE and Choice Goals	568		0.536***	<.001

Interpretation of the relationship between Vocational Outcome Expectations and Choice Goals: Results depict significant positive correlation between VOE and Choice Goals, with Pearson's $r=0.536$ & $p\text{-value}<0.001$. Suggesting that higher VOE is associated with more clearly defined career goals among individuals.

REGRESSION ANALYSES

Current research regression analyses conducted for assessing predictive role of independent variables on dependent variables. Here, Personality traits are independent variables, and Career Goals or CDMSE are considered as dependent variables (Madow and Anderson, 1959).

Table3.7: Regression Analysis between Openness and Choice Goals

Predictor	R	R ²	Adj. R ²	RMSE	F	P (Model)	Estimate	SE	t	P (Estimate)	Standardized Estimate
Openness	0.408	0.166	0.165	0.643	113.0	<.001	0.530	0.050	10.6	<.001	0.408
Conscientiousness	0.135	0.018	0.017	0.698	10.6	0.001	0.172	0.053	3.25	0.001	0.135
Extroversion	0.270	0.073	0.071	0.678	44.5	<.001	0.362	0.054	6.67	<.001	0.270
Agreeableness	0.261	0.068	0.066	0.680	41.3	<.001	0.319	0.050	6.43	<.001	0.261
Neuroticism	0.135	0.018	0.017	0.698	10.5	0.001	0.152	0.047	3.25	0.001	0.135



Interpretation of the predictive roles of Personality Traits on Choice Goals: The results of regression analysis within personality traits and Choice Goals indicate different prediction levels with variation.

Openness significantly predicts Choice Goals with a moderate positive relationship, explaining 16.6% of the variance, $R^2=0.166$, $p<.001$.

Conscientiousness shows a small positive effect on Choice Goals, accounting for 1.83% of the variance, $R^2=0.0183$, $p=.001$.

Extroversion has a moderate positive relationship with Choice Goals, explaining 7.29% of the variance, $R^2=0.0729$, $p<.001$.

Agreeableness also positively influences Choice Goals, accounting for 6.8% of the variance, $R^2=0.0680$, $p<.001$.

Neuroticism has a small positive association with Choice Goals, explaining 1.83% of the variance, $R^2=0.0183$, $p=.001$.

Table 3.8: Regression Analysis between Openness and CDMSE

Predictor	R	R ²	Adj. R ²	RMSE	F	P (Model)	Estimate	SE	t	P (Estimate)	Standardized Estimate
Openness	0.497	0.247	0.245	0.654	185	<.001	0.690	0.051	13.6	<.001	0.497
Conscientiousness	0.095	0.009	0.008	0.750	5.12	0.024	0.128	0.057	2.26	0.024	0.095
Extroversion	0.285	0.081	0.080	0.722	50.1	<.001	0.409	0.058	7.08	<.001	0.285
Agreeableness	0.314	0.098	0.097	0.715	61.7	<.001	0.410	0.052	7.86	<.001	0.314
Neuroticism	0.105	0.010	0.009	0.749	6.25	0.013	0.051	0.031	2.50	0.013	0.105

Interpretation of the Predictive Roles of Personality traits on CDMSE: The results of regression analysis between personality traits and CDMSE indicate different levels of predictions with variation.

Openness has found a strong positive association with CDMSE, explaining 24.7% of the variance, $R^2=0.247$, $p<.001$.

Conscientiousness has a small positive effect on CDMSE, explaining 0.897% of the variance, $R^2=0.00897$, $p=.024$.

Extroversion shows a moderate positive relationship with CDMSE, explaining 8.14% of the variance, $R^2=0.0814$, $p<.001$.

Agreeableness positively influences CDMSE with a moderate effect, accounting for 9.83% of the variance, $R^2=0.0983$, $p<.001$.

Neuroticism has a small positive effect on CDMSE, explaining 1.1% of the variance, $R^2=0.0109$, $p=0.013$.

Table-3.9: Regression Analysis between CDMSE and Choice Goals

Predictor	R	R ²	Adj. R ²	RMSE	F	P (Model)	Estimate	SE	t	P (Estimate)	Standardized Estimate
Openness	0.798	0.636	0.635	0.425	989	<.001	0.746	0.024	31.45	<.001	0.798

Interpretation of the Predictive Roles of CDMSE on Choice Goals/Career Goals: The regression analysis indicated strong positive relationship within CDMSE & Choice Goals. The model explains 63.6% of variance in Choice Goals ($R^2=0.636$, $p<.001$), with a significant model fit ($F=989$, $p<.001$). Openness emerges as a highly significant predictor (Estimate=0.746, $t=31.45$, $p<.001$), with a standardized estimate of 0.798, suggesting a substantial impact of openness on choice goals. The low RMSE (0.425) reflects a good model fit.



Table3.10: Regression Analysis between Openness and VOE

Predictor	R	R ²	Adj. R ²	RMSE	F	P (Model)	Estimate	SE	t	P (Estimate)	Standardized Estimate
Openness	0.416	0.173	0.171	0.431	118	<.001	0.363	0.33	10.9	<.001	0.416
Extroversion	0.265	0.0704	0.069	0.457	42.8	<.001	0.239	0.037	6.55	<.001	0.265
Agreeableness	0.279	0.078	0.076	0.455	47.9	<.001	0.230	0.033	6.92	<.001	0.279
Neuroticism	0.180	0.032	0.031	0.466	18.9	<.001	0.137	0.031	4.34	<.001	0.180

Interpretations of the Predictive Roles of Vocational Outcome Expectations on Career Goals/Choice Goals: Regression analysis results between personality traits/factors and Vocational Outcome Expectations indicate different levels of predictions with variation. Such as:

Openness explains 17.3% of the variance in VOE ($R^2=0.173$) and is a significant moderate predictor ($R=0.416, p<.001$).

Extraversion accounts for 7.04% of the variance in VOE ($R^2=0.0704$) and has a small but significant positive influence ($M=0.265, p<.001$).

Agreeableness predicts 7.8% of the variance in VOE ($R^2=0.078$) and demonstrates a moderate positive effect ($R=0.279, p<.001$).

Neuroticism explains 3.2% of the variance in VOE ($R^2=0.032$) and shows a small yet significant positive effect ($M=0.180, p<.001$).

Table3.11: Regression Analysis between VOE on Choice Goals

Predictor	R	R ²	Adj. R ²	RMSE	F	P (Model)	Estimate	SE	t	P (Estimate)	Standardized Estimate
Openness	0.536	0.287	0.286	0.595	228	<.001	0.797	0.053	15.09	<.001	0.536

Interpretation of the Predictive Roles of Vocational Outcome Expectations on Choice Goals: Model demonstrates moderate correlation ($R = 0.536$) that explains 28.7% Choice Goals variance ($R^2=0.287$), with an RMSE of 0.595, indicating a good fit. The intercept is estimated at 1.455, and Vocational Outcome Expectations (VOE) significantly positively influence Choice Goals (estimate = 0.797, $p < .001$), with a standardized estimate of 0.536.

MEDIATION ANALYSIS

Mediation analyses in current research conducted for evaluating whether relationship between an independent variable/and dependent variable/s is/are mediated by mediating or intervening variable/s (Hayes, 2017). In this study, Personality traits are independent variables, and Choice Goals are dependent variables. CDMSE and VOE are intervening variables.

Present study mediation analyses were conducted with two variables as mediators:

- CDMSE
- Outcome Expectations/VOE

The two mediators form two triangles:

- Personality → CDMSE → Choice Goals) = Upper Triangle
- Personality → VOE → Choice Goals) = Lower Triangle



Table-3.12: Mediation Analysis (Openness → CDMSE → Choice Goals)

Mediation Estimates								
Effect	Label	Estimate	SE	95% Confidence Interval		Z	p	% Mediation
				Lower	Upper			
Indirect	$a \times b$	0.5097	0.0419	0.4277	0.5918	12.178	<.001	96.23
Direct	c	0.0200	0.0379	-0.0543	0.0943	0.527	0.598	3.77
Total	$c + a \times b$	0.5297	0.0498	0.4321	0.6273	10.637	<.001	100.00

Path Estimates									
			Label	Estimate	SE	95% Confidence Interval		Z	p
						Lower	Upper		
Openness	→	CDMSE	a	0.6904	0.0506	0.5911	0.7897	13.633	<.001
CDMSE	→	Choice Goals	b	0.7383	0.0273	0.6849	0.7917	27.093	<.001
Openness	→	Choice Goals	c	0.0200	0.0379	-0.0543	0.0943	0.527	0.598

Interpretation of the Mediation Analysis between Openness and Career Goals, with CDMSE as the Mediator:
The analysis displays CDMSE significantly mediates relationship between Openness and Choice Goals, with an indirect effect estimate 0.5097 (95% CI=0.4277-0.5918), covering 96.23% of the total effect. While Openness strongly predicts CDMSE ($p < .001$), its direct effect on Choice Goals is insignificant ($p = 0.598$).

Table-3.13: Mediation Analysis (Conscientiousness → CDMSE → Choice Goals)

Mediation Estimates								
Effect	Label	Estimate	SE	95% Confidence Interval		Z	p	% Mediation
				Lower	Upper			
Indirect	$a \times b$	0.0951	0.0420	0.0127	0.177	2.26	0.024	55.4
Direct	c	0.0766	0.0321	0.0137	0.139	2.39	0.017	44.6
Total	$c + a \times b$	0.1717	0.0527	0.0684	0.275	3.26	0.001	100.0



Path Estimates									
				95% Confidence Interval					
				Interval					
			Label	Estimate	SE	Lower	Upper	Z	p
Conscientiousness	→	CDMSE	a	0.1285	0.0567	0.0174	0.240	2.27	0.023
CDMSE	→	Choice Goals	b	0.7401	0.0236	0.6938	0.786	31.30	<.001
Conscientiousness	→	Choice Goals	c	0.0766	0.0321	0.0137	0.139	2.39	0.017

Interpretation of the Mediation Analysis between Conscientiousness and Career Goals, with CDMSE as the Mediator: The mediation analysis shows a significant indirect effect of Conscientiousness on Choice Goals by CDMSE, with an estimate of 0.0951 (95% CI = 0.0127 to 0.177), indicating partial mediation. Both the direct effect of Conscientiousness on Choice Goals (estimate = 0.0766, $p = 0.017$) and the relationships between Conscientiousness and CDMSE ($a = 0.1285$, $p = 0.023$) and CDMSE and Choice Goals ($b = 0.7401$, $p < .001$) are also significant.

Table-3.14: Mediation Analysis (Extroversion → CDMSE → Choice Goals)

Mediation Estimates									
				95% Confidence Interval					
Effect	Label	Estimate	SE	Lower	Upper	Z	p	% Mediation	
Indirect	$a \times b$	0.2997	0.0434	0.21458	0.385	6.90	<.001	82.9	
Direct	c	0.0620	0.0353	-0.00713	0.131	1.76	0.079	17.1	
Total	$c + a \times b$	0.3617	0.0541	0.25565	0.468	6.68	<.001	100.0	



Path Estimates									
				95% Confidence Interval					
				Interval					
			Label	Estimate	SE	Lower	Upper	Z	p
Extroversion	→	CDMSE	a	0.4088	0.0576	0.29585	0.522	7.09	<.001
CDMSE	→	Choice Goals	b	0.7331	0.0246	0.68487	0.781	29.78	<.001
Extroversion	→	Choice Goals	c	0.0620	0.0353	-0.00713	0.131	1.76	0.079

Interpretation of the Mediation Analysis between Extroversion and Career Goals, with CDMSE as the Mediator: The mediation estimates indicate that the indirect effect of Extroversion on Choice Goals by CDMSE is significant (estimate = 0.2997, 95% CI = 0.21458 to 0.385), accounting for 82.9% of the total effect, suggesting that CDMSE is a substantial mediator. Extroversion's direct impact on Choice Goals is insignificant (estimate = 0.0620, $p = 0.079$), while the path estimates show that Extroversion significantly predicts CDMSE ($a = 0.4088$, $p < .001$), and CDMSE significantly predicts Choice Goals ($b = 0.7331$, $p < .001$).

Table-3.15: Mediation Analysis (Agreeableness → CDMSE → Choice Goals)

Mediation Estimates									
				95% Confidence Interval					
Effect	Label	Estimate	SE	Lower	Upper	Z	p	% Mediation	
Indirect	$a \times b$	0.3044	0.0400	0.2260	0.3829	7.609	<.001	95.45	
Direct	c	0.0145	0.0326	-0.0494	0.0784	0.445	0.656	4.55	
Total	$c + a \times b$	0.3190	0.0495	0.2219	0.4161	6.438	<.001	100.00	



Path Estimates									
				95% Confidence Interval					
				Interval					
			Label	Estimate	SE	Lower	Upper	Z	p
Agreeableness	→	CDMSE	a	0.4103	0.0521	0.3081	0.5125	7.870	<.001
CDMSE	→	Choice Goals	b	0.7420	0.0249	0.6932	0.7908	29.783	<.001
Agreeableness	→	Choice Goals	c	0.0145	0.0326	-0.0494	0.0784	0.445	0.656

Interpretation of the Mediation Analysis between Agreeableness and Career Goals, with CDMSE as the Mediator: The mediation estimates indicate that the indirect effect of Agreeableness on Choice Goals through CDMSE is significant (estimate=0.3044, 95% CI=0.2260-0.3829), accounting for 95.45% of the total effect, indicating that CDMSE is a strong mediator. Agreeableness's direct effect on Choice Goals is insignificant (estimate=0.0145, $p=0.656$), while the path estimates show that Agreeableness significantly predicts CDMSE ($a=0.4103$, $p<.001$), and CDMSE significantly predicts Choice Goals ($b=0.7420$, $p<.001$).

Table-3.16: Mediation Analysis (Neuroticism → CDMSE → Choice Goals)

Mediation Estimates									
				95% Confidence Interval					
Effect	Label	Estimate	SE	Lower	Upper	Z	p	% Mediation	
Indirect	$a \times b$	0.0936	0.0375	0.02010	0.167	2.50	0.013	61.2	
Direct	c	0.0593	0.0287	0.00310	0.115	2.07	0.039	38.8	
Total	$c + a \times b$	0.1529	0.0470	0.06074	0.245	3.25	0.001	100.0	



Path Estimates									
				95% Confidence Interval					
			Label	Estimate	SE	Lower	Upper	Z	p
Neuroticism	→	CDMSE	a	0.1264	0.0505	0.02747	0.225	2.50	0.012
CDMSE	→	Choice Goals	b	0.7403	0.0237	0.69389	0.787	31.24	<.001
Neuroticism	→	Choice Goals	c	0.0593	0.0287	0.00310	0.115	2.07	0.039

Interpretation of the Mediation Analysis between Neuroticism and Career Goals, with CDMSE as the Mediator: This mediation analysis reveals a significant indirect effect of Neuroticism on Choice Goals through CDMSE, with an estimate of 0.0936 (95% CI = 0.0201 to 0.167), accounting for 61.2% of the total effect, indicating partial mediation. Neuroticism's direct effect on Choice Goals is also significant (estimate = 0.0593, $p = 0.039$), with Neuroticism significantly predicting CDMSE ($a = 0.1264$, $p = 0.012$) and CDMSE significantly predicting Choice Goals ($b = 0.7403$, $p < .001$).

Table-3.17: Mediation Analysis (Openness → VOE → Choice Goals)

Mediation Estimates									
				95% Confidence Interval					
Effect	Label	Estimate	SE	Lower	Upper	Z	p	% Mediation	
Indirect	$a \times b$	0.239	0.0300	0.180	0.298	7.98	<.001	45.2	
Direct	c	0.290	0.0491	0.194	0.387	5.91	<.001	54.8	
Total	$c + a \times b$	0.530	0.0498	0.432	0.627	10.64	<.001	100.0	



Path Estimates									
				95% Confidence Interval		Z	p		
		Label	Estimate	SE				Lower	Upper
Openness	→	VOE	a	0.363	0.0333	10.90	<.001	0.298	0.429
VOE	→	Choice Goals	b	0.658	0.0562	11.71	<.001	0.548	0.769
Openness	→	Choice Goals	c	0.290	0.0491	5.91	<.001	0.194	0.387

Interpretation of the Mediation Analysis between Openness and Career Goals, with VOE as the Mediator: Mediation analysis indicates indirect effect of Openness on Choice Goals through VOE is significant (estimate = 0.239, 95% CI = 0.180 to 0.298), accounting for 45.2% of total effect, while direct effect is also significant (estimate = 0.290), suggesting a direct influence of Openness on Choice Goals. The path estimates show that Openness significantly predicts VOE (estimate = 0.363), and VOE significantly predicts Choice Goals (estimate = 0.658), both with high statistical significance ($p < .001$), reinforcing the direct impact of Openness on Choice Goals.

Table-3.18: Mediation Analysis (Extroversion → VOE → Choice Goals)

Mediation Estimates									
				95% Confidence Interval		Z	p	% Mediation	
Effect	Label	Estimate	SE						
Indirect	a × b	0.177	0.0300	0.1186	0.236	5.92	<.001	49.0	
Direct	c	0.184	0.0486	0.0891	0.280	3.79	<.001	51.0	
Total	c + a × b	0.362	0.0541	0.2557	0.468	6.68	<.001	100.0	

Path Estimates									
				95% Confidence Interval		Z	p		
		Label	Estimate	SE				Lower	Upper
Extroversion	→	VOE	a	0.239	0.0364	6.56	<.001	0.1675	0.310
VOE	→	Choice Goals	b	0.742	0.0540	13.75	<.001	0.6364	0.848
Extroversion	→	Choice Goals	c	0.184	0.0486	3.79	<.001	0.0891	0.280



Path Estimates							
	Label	Estimate	SE	95% Confidence Interval		Z	p
				Lower	Upper		

Interpretation of the Mediation Analysis between Extroversion and Career Goals, with VOE as the Mediator: Mediation analysis reveals Extroversion indirect effect on Choice Goals through Vocational Outcome Expectations (VOE) is significant (estimate=0.177,95%; CI=0.1186-0.236), accounting for 49.0% of total effect, while direct effect is also significant (estimate = 0.184), indicating a direct influence of Extroversion on Choice Goals. The path estimates indicate that Extroversion significantly predicts VOE (estimate = 0.239), and VOE significantly predicts Choice Goals (estimate = 0.742), both with high statistical significance ($p < .001$).

Table-3.19: Mediation Analysis (Agreeableness → VOE → Choice Goals)

Mediation Estimates								
Effect	Label	Estimate	SE	95% Confidence Interval		Z	p	% Mediation
				Lower	Upper			
Indirect	$a \times b$	0.172	0.0277	0.1172	0.226	6.19	<.001	53.8
Direct	c	0.147	0.0447	0.0598	0.235	3.30	<.001	46.2
Total	$c + a \times b$	0.319	0.0495	0.2219	0.416	6.44	<.001	100.0

Path Estimates									
			Label	Estimate	SE	95% Confidence Interval		Z	p
						Lower	Upper		
Agreeableness	→	VOE	a	0.230	0.0331	0.1648	0.295	6.93	<.001
VOE	→	Choice Goals	b	0.746	0.0544	0.6399	0.853	13.73	<.001
Agreeableness	→	Choice Goals	c	0.147	0.0447	0.0598	0.235	3.30	<.001

Interpretation of the Mediation Analysis between Agreeableness and Career Goals, with VOE as the Mediator: This mediation analysis reveals a significant indirect effect of Agreeableness on Choice Goals through Vocational Outcome Expectations (VOE), with an estimate of 0.172 (95% CI = 0.1172 to 0.226), accounting for 53.8% of the total effect. The direct effect of Agreeableness on Choice Goals is also significant (estimate = 0.147), with Agreeableness predicting VOE (estimate = 0.230) and VOE predicting Choice Goals (estimate = 0.746), both highly significant ($p < .001$).



Table-3.20: Mediation Analysis (Neuroticism → VOE → Choice Goals)

Mediation Estimates								
Effect	Label	Estimate	SE	95% Confidence Interval		Z	p	% Mediation
				Lower	Upper			
Indirect	$a \times b$	0.1073	0.0257	0.0569	0.158	4.17	<.001	70.2
Direct	c	0.0456	0.0407	-0.0342	0.125	1.12	0.263	29.8
Total	$c + a \times b$	0.1529	0.0470	0.0607	0.245	3.25	0.001	100.0

Path Estimates									
			Label	Estimate	SE	95% Confidence Interval		Z	p
						Lower	Upper		
Neuroticism	→	VOE	a	0.1366	0.0314	0.0751	0.198	4.35	<.001
VOE	→	Choice Goals	b	0.7858	0.0535	0.6809	0.891	14.69	<.001
Neuroticism	→	Choice Goals	c	0.0456	0.0407	-0.0342	0.125	1.12	0.263

Interpretation of the Mediation Analysis between Neuroticism and Career Goals, with VOE as the Mediator:

The mediation analysis reveals that Neuroticism indirect effect on Choice Goals through VOE is significant (estimate = 0.1073, 95% CI = 0.0569 to 0.158), accounting for 70.2% of the total effect, while the direct effect is insignificant (estimate = 0.0456), indicating that Neuroticism's influence on Choice Goals is primarily mediated through VOE. The path estimates indicate that Neuroticism significantly predicts VOE (estimate = 0.1366), and VOE significantly predicts Choice Goals (estimate = 0.7858), both with high statistical significance ($p < .001$).

DISCUSSION

The results of the three analyses, such as correlation, regression, and mediation were conducted and analyzed in this study. The integration and result of every analysis give an overview of the relationship that exists between the students' CDMSE, VOE, and choice goals personality traits:

According to the correlation analysis, all 5 traits encompassing Openness, Extroversion, Conscientiousness, Agreeableness, and Neuroticism were positively correlated with students' choice goals. Students with more of these traits have been noted to possess more specific or greater ambition in their career choices. This finding highlights the importance of personality tasks for students targets caregivers, making them interested in the research. Also, it has been noted that Openness, Extroversion, Agreeableness and Neuroticism positively correlate with CDMSE, with CDMSE correlating highly with VOE. This implies students exhibiting these characteristics are likely to be more decisive in their career choices and may anticipate greater success in their careers as well which will as well aid them in formulating more definite career objectives.

The findings in the regression are also in line with the correlational findings and suggest that Openness,



Conscientiousness, Extroversion, Agreeableness, and Neuroticism are predictors of Choice Goals. Among these characteristics, Openness has the greatest impact because it explains the most variance in Choice Goals, or R square equals 16.6 percent. Dutch integration also proves that those students with higher levels of Openness are also more likely to develop confidence in career decision making. CDMSE's extensive influence on Choice Goals R square = 63.6 percent is also very helpful in explaining students' expectations and decisions with regard to their careers.

The mediation analyses clearly suggest that CDMSE is a key element in the chain involving personality traits of Agreeableness, Openness, Extroversion, Conscientiousness, & Choice Goals. There is a significant mediation relationship in CDMSE since the total overwhelms each other, making the majority of each total effect. This shows that CDMSE is an important mediator which increases association among other variables & career goals. With regard to example, CDMSE completely mediates relation of Openness and Choice Goals in which it can be seen that students must be confident in their capability of making career decisions so as to be able to transform their openness into real career goals. Further, CDMSE has been able to explain why Conscientiousness and Extroversion affected the Choice Goals at some but not all levels. It would seem that these particular traits do determine career goals by themselves but not quite so unless there are unremittingly CDMSE present to strengthen this impact.

Covering all these analyses together, it can be concluded that there is a certain influence of the personality traits, namely Openness, Influence Students' Career Goal Clarity, and there is an intervention which is termed CDMSE. More self-assured students in terms of divisions emanating from their cycle every decision-making concept set up goals in career interests that are more particular and highly sought after with VOE as an additional factor. There are several implications of these ideas which highlights the importance of developing. There are quantitative data that support that point the effectiveness of CDMSE in developing students' personality characteristics and which concurs with their career aspirations and hopes. Some limitations exist related to self-reporting of data, and therefore, the generalizability perspective is restricted, and there are possibilities that further research will consider additional contextual variables such as Choice Goals. Interestingly, future studies applied direction and conceptual developments the educational profiles employed to increase CDMSE focus aspirations consistently across students.

CONCLUSION

The present study signifies positive correlations between the five factors of personality: Extroversion, Openness, Agreeableness, Neuroticism, and Conscientiousness, which are related to students' career aspirations. Regression analysis further shows that these traits, and more specifically Openness, serve as strong predictors of choice goals, with CDMSE as most important moderating factor in this relationship. Mediation analysis results revealed that CDMSE not only increases the effect of personality traits on career aspirations but also completely mediates the effect of Openness and partially mediates the effects of Conscientiousness and Expansiveness. The research finds evidence for the enhanced engagement of students in occupations relevant to their education, making it critical for educators to encourage CDMSE within their schools, for it determines how personality traits influence students' career behaviours. Programs that increase students' confidence in their decision-making ability are associated with broader and higher career aspirations, which are essential for their growth and success in their future career paths.



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